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EXAMINER

NGUYEN, LUONG TRUNG

ART UNIT	PAPER NUMBER
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2612

DATE MAILED: 01/29/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/420,507

Applicant(s)

KAKU, JUNYA

Examiner

LUONG T NGUYEN

Art Unit

2612

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: See Continuation Sheet.

Continuation of Attachment(s) 6). Other: Japanese and English Translation of JP 06-022262 .

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-5 filed on 10/14/2003 have been fully considered but they are not persuasive.

Applicant's arguments with respect to newly added claims 6-7 filed on 10/14/2003 have been considered but are moot in view of the new ground(s) of rejection.

In re page 9, Applicant argues that Hidetoshi et al. does not reveal that the 2nd power saving reference voltage is less than the 1st power saving reference voltage.

In response, regarding claim 1, the Applicant amended claim 1 with the limitation "wherein said first threshold value is less than said second threshold value." The Examiner considers that Hidetoshi et al. do disclose this feature. Hidetoshi et al. disclose the 2nd reference voltage of a still picture recording mode (first threshold value) is lower than the 1st reference voltage of an animation recording mode (second threshold value), see section [0048] of the English translation, page 4 of 6 and translation of claims 1-2, page 1 of 1.

Japanese patent application and an English translation by computer of Japanese patent application, publication number JP 06-022262 are provided to the Applicant to consider.

Claim Objections

2. Claim 5 is objected to because of the following informalities:

Claim 5 (line 3), "said comparing means" should be changed to --said comparison

Art Unit: 2612

means--.

Claim 7 (line 3), claim 8 (line 2), "screen" should be changed to -- scene--.

Claim 7 (line 5), claim 8 (line 4), claim 10 (lines 2, 4), "screens" should be changed to -- scenes--.

Claims 8-12 are objected as being dependent on claim 7.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai (US 5,206,730) in view of Kaneko et al. (US 5,262,868) further in view of Hidetoshi et al. JP 06-022262).

Regarding claim 1, Sakai discloses an electronic camera to be driven by a battery (battery, column 4, lines 12-29), comprising an instruction key for instructing for picture taking (release switch 12, figure 1, column 3, line 38); a picture taking means (CCD sensor 2, figure 1, column 3, lines 10-20); a processing means (digital processing circuit 5, figure 1, column 3, lines 18-30); a recording means (memory 7, figure 1, column 3, lines 22-30); a select means for selecting either one of a still image recording mode to picture taking a 1-scene subject image in response to once operating said instruction key and recording said 1-scene image signal to said

Art Unit: 2612

recording medium, and a continuous image recording mode to picture taking a plurality of scenes of subject images in response to once operating said instruction key and recording said plurality of scenes of image signals to said recording medium (control panel 11, figure 1, column 3, lines 34-38).

Sakai fails to specifically disclose a comparison means for comparing a remaining capacity of said battery with a predetermined threshold value; and a disabling means for disabling said instruction key depending upon a result of comparison by said comparison means. However, Kaneko et al. a digital electronic still camera, which includes a comparing means for comparing one threshold voltage with the battery voltage (column 4, lines 5-13, column 8, lines 50-58). Kaneko et al. also disclose that if the battery voltage is smaller than the threshold voltage, the card battery down flag FD is set, and an alarm is displayed on display 41 (figures 1, 3, column 8, lines 50-58). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Sakai by the teaching of Kaneko et al. in order to obtain a camera in which a battery voltage could be checked.

Sakai and Kaneko et al. fail to specifically disclose a first enabling means for enabling a first threshold value related to a consumed power required for recording a 1-scene image signal when said still image recording mode is selected; and a second enabling means for enabling a second threshold value related to a consumed power required for recording said plurality of scenes of image signals when said continuous image recording mode is selected, wherein said first threshold value is less than said second threshold value. However, Hidetoshi et al. disclose in the moving recording mode, when a battery voltage is less than a 1st power reference voltage (second threshold value), the power supply from battery is interrupted; and in the still picture

Art Unit: 2612

recording mode, when a battery voltage is less than a 2nd power reference voltage (first threshold value), the power supply from battery is interrupted (See Constitution, see section [0048] of the English translation, page 4 of 6 and translation of claims 1-2, page 1 of 1). Hidetoshi et al. also disclose the 2nd reference voltage of a still picture recording mode (first threshold value) is lower than the 1st reference voltage of an animation recording mode (second threshold value), see section [0048] of the English translation, page 4 of 6 and translation of claims 1-2, page 1 of 1.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Sakai and Kaneko et al. by the teaching of Hidetoshi et al. in order to effectively use a battery in different recording mode. This saves the capacity of battery.

Regarding claim 5, Sakai, Kaneko et al. and Hidetoshi et al. fail to specifically disclose a display means for displaying character indicative of not-recordable depending upon a result of comparison by said comparison means. However, Kaneko et al. disclose display 41 for displaying a warning when the battery voltage is smaller than the threshold voltage (figure 1, column 8, lines 50-58). It would have been obvious to display a character indicative of not-recordable onto display 41 in order to let the user knows that recording is prevented.

Regarding claim 6, Sakai, Kaneko et al. and Hidetoshi et al. fail to specifically disclose wherein said first threshold value is a remaining battery voltage that is greater than or equal to 5% of a battery fully charged capacity and said second threshold value is the remaining battery voltage that is greater than or equal to 25% of a battery fully charged capacity. However, this is

a matter of design choice to set threshold as a desired value because Hidetoshi et al. disclose the first threshold value and the second threshold value.

5. Claims 2, 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai (US 5,206,730) in view of Kaneko et al. (US 5,262,868) and Hidetoshi et al. JP 06-022262) further in view of Misawa (US 6,208,380).

Regarding claim 2, Sakai, Kaneko et al. and Hidetoshi fail to specifically disclose a storing means to temporarily store said image signal processed by said processing means into an internal memory, and a write means to write, after a predetermined number of scenes of image signals have been stored in said internal memory, said predetermined number of scenes of image signals to said recording medium. However, Misawa discloses a digital camera, in which image signal processed digital image processing circuit 36 is recorded into built-in memory 42 (internal memory), and system control circuit 46 (write means) stores the image data read out from built-in memory 42 in the memory card 12 (recording medium, figures 1, 4, column 4, lines 3-30). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Sakai, Kaneko et al. and Hidetoshi by the teaching of Misawa in order to store image data representing captured object images before transferring to memory card. This increases the number of capturing images.

Regarding claim 3, Misawa discloses the predetermine number of scenes is related to a recording mode selected by select means (number of captured images stored in memory 42, column 4, lines 7-11).

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai (US 5,206,730) in view of Kaneko et al. (US 5,262,868) and Hidetoshi et al. (JP 06-022262) further in view of Ejima (US 6,188,432).

Regarding claim 4, Hidetoshi discloses the second threshold value assuming a common value (1st reference voltage, Constitution) in between the motion image recording mode and the successive shot recording mode. Sakai, Kaneko et al. and Hidetoshi fail to specifically disclose the continuous image recording mode includes a motion image recording mode to take a first number of scenes of motion images and recording said first number of scenes of image signal to said recording medium, and a successive shot recording mode to perform successive shots of still images in a second number of scenes less than said first number of scenes and recording said second number of scenes of image signal to said recording medium; and the processing means creating an image signal of a first resolution when said motion image recording mode is selected and an image signal of a second resolution higher than the first resolution when said successive shot recording mode is selected. However, Ejima discloses an electronic camera, in which the continuous shooting mode includes high speed continuous shooting mode (motion image recording mode), and low speed continuous shooting mode (successive shot recording mode), and the image data is recorded in memory card 24 (figure 4, column 3, lines 43-55, column 4, lines 32-38). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Sakai, Kaneko et al. and Hidetoshi by the teaching of Ejima in order to allow the user to take picture at desired mode.

Art Unit: 2612

7. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai (US 5,206,730) in view of Hidetoshi et al. (JP 06-022262).

Regarding claim 7, Sakai discloses an electronic camera to be driven by a battery (battery, column 4, lines 12-29), comprising an imaging device (CCD sensor 2, figure 1, column 3, lines 10-20); a selector for selecting anyone of a first mode for recording one screen of image signal and a second mode for recording a plurality of screens of image signals (control panel 11 operates and changes over various modes such as photographing modes of one shot photographing mode and serial shot photographing mode, figure 1, column 3, lines 34-38); a recorder for recording to a recording medium the image signal(s) having the number of screens corresponding to the mode selected by said selector (memory 7, figure 1, column 3, lines 22-30).

Sakai fails to specifically disclose a displayer for displaying a real-time motion image corresponding to the object images which are imaged by said imaging device during a time period that no recording process is performed by said recorder; a detector for detecting a remaining amount of said battery when a recording instruction is issued; a determiner for determining whether or not the remaining amount detected by said detector is equal to or more than a threshold value corresponding to the mode selected by said selector out of a first threshold value corresponding to the first mode and a second threshold value corresponding to the second mode; and a controller for enabling said recorder when a determination result of said determiner is affirmative and disabling said recorder when the determination result of said determiner is negative.

However, Hidetoshi et al. discloses displayer for displaying real-time motion image (viewfinder 205 for picture monitors, Drawing 13, section [0015], page 2 of 6); detector

Art Unit: 2612

(detecting circuit 2 for detecting the residue of battery 1, section [0041], page 3 of 6); a determiner (detecting circuit 2, in the moving recording mode, when a battery voltage is less than a 1st power reference voltage (second threshold value), the power supply from battery is interrupted; and in the still picture recording mode, when a battery voltage is less than a 2nd power reference voltage (first threshold value), the power supply from battery is interrupted (See Constitution, see section [0048] of the English translation, page 4 of 6 and translation of claims 1-2, page 1 of 1); a controller for enabling said recorder when a determination result of said determiner is affirmative and disabling said recorder when the determination result of said determiner is negative (Hidetoshi et al. discloses that in the moving picture recording mode, if the battery voltage is less than a 1st power reference voltage, the power supply from battery 1 to recorder 7 is interrupted. This also shows that when the battery voltage is larger than a 1st power reference voltage, the recording is enabled (determination result of said determiner is affirmative), and when the battery voltage is not larger than a 1st power reference voltage, the recording is disabled (determination result of said determiner is negative), see Constitution.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Sakai by the teaching of Hidetoshi et al. in order to effectively use a battery in different recording mode. This saves the capacity of battery.

Regarding claim 8, Hidetoshi et al. discloses wherein the first threshold value corresponds to a consumption power required for recording the one screen of image signal (2nd power reference voltage of a still picture recording mode, see Constitution), and a second threshold value corresponds to a consumption power required for recording the plurality of

Art Unit: 2612

screens of image signals (1st power reference voltage of an animation recording mode, see Constitution).

8. Claims 9 and 12 rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai (US 5,206,730) in view of Hidetoshi et al. (JP 06-022262) further in view of Kaneko et al. (US 5,262,868).

Regarding claim 9, Sakai and Hidetoshi et al. fail to specifically disclose said recorder includes a writer for writing to an internal memory the image signal corresponding to the object image, and a transferor for transferring the image signal stored in said internal memory to said recording medium. However, Sakai discloses memory 7 as a recording medium (figure 1, column 3, lines 22-30). And Hidetoshi et al. discloses an electronic still camera in which the image data representing an image of the subject is stored in frame memory 12 (internal memory) via memory controller 10 (figure 1, column 6, lines 24-35), and the image data stored in frame memory 12 is transferred to memory card 50 (recording medium) via card interface 15 (a transferor, figure 1, column 6, lines 42-68). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Sakai and Hidetoshi et al. by the teaching of Kaneko et al. in order to let the camera have the capability of a reproduction mode. Doing so, the image data stored in an external memory (such as a memory card) can be loaded to an internal memory of the camera and then to be processed to output a video signal.

Art Unit: 2612

Regarding claim 12, Sakai and Hidetoshi et al. fail to specifically disclose an ouputter for outputting a message indicative of not-recordable when the determination result of said determiner is negative. However, Kaneko et al. disclose display 41 for displaying a warning when the battery voltage is smaller than the threshold voltage (figure 1, column 8, lines 50-58). It would have been obvious to display a character indicative of not-recordable onto display 41 in order to let the user knows that recording is prevented.

9. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai (US 5,206,730) in view of Hidetoshi et al. (JP 06-022262) and Kaneko et al. (US 5,262,868) further in view of Ejima (US 6,188,432).

Regarding claim 10, Sakai, Hidetoshi et al. and Kaneko et al. fail to specifically disclose wherein the second mode includes a first resolution mode for recording M (M:integer more than one) screens of the image signals each of which has a first resolution, and a second resolution mode for recording N (N: integer more than one and less than M) screens of the image signals each of which has a second resolution higher than the first resolution. However, Ejima discloses a continuous shooting mode, which includes low speed continuous shooting mode, in this mode, the camera shoots eight frames per second, and high speed continuous mode, the camera shoots 30 frames per second. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device in Sakai, Hidetoshi et al. and Kaneko et al. by the teaching of Eijma in order to include a plurality of continuous shooting mode in the camera. This let the user can select a desired continuous shooting mode.

Regarding claim 11, Hidetoshi et al. discloses the second threshold has a common numerical value to the first resolution mode and the second resolution mode (value a, Drawing 3).

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Luong Nguyen** whose telephone number is (703) 308-9297. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Wendy Garber**, can be reach on (703) 305-4929.

Any response to this action should be mailed to:

Art Unit: 2612

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:
(703) 872 - 9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

LN LN
1/25/2004


NGOC-YEN YU
PRIMARY EXAMINER